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Oliver Hurst-Hiller

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EXAMINER

STACE, BRENT S

ART UNIT

PAPER NUMBER

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/805,706	Applicant(s) HURST-HILLER ET AL.	
	Examiner BRENT STACE	Art Unit 2161	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 April 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3,5,7,8,10-14 and 16-18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3,5,7,8,10-14 and 16-18 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 29 May 2007 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Remarks

1. This communication is responsive to the Amendment filed April 15th, 2008. Claims 1-3, 5, 7, 8, 10-14, and 16-18 are pending. In the Amendment filed April 15th, 2008, Claims 1, 5, 10, 11, 14, and 18 are amended, Claims 4, 6, 9, 15 are canceled, and Claims 1, 5, 10, 11, 14, and 18 are independent claims. The examiner acknowledges that no new matter was introduced and the amended claims are supported by the specification.

Continued Examination Under 37 CFR 1.114

2. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 4/15/08 has been entered.

Response to Arguments

3. Applicant's arguments dated April 15th, 2008 with respect to Claims 1-3, 5, 7, 8, 10-14, and 16-18 have been considered but are either not persuasive or are moot in view of the new grounds of rejection. See below for a detailed discussion.

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4. As to Applicant's arguments with respect to Claims 1, 5, 10, 11, 14, and 18 for the prior art(s) allegedly not teaching or suggesting "generating interpreted user behavior data by concurrently updating a state machine using raw user behavior data," the examiner respectfully submits that this argument is moot in view of the new ground(s) of rejection.

5. As to Applicant's arguments with respect to Claims 1, 5, 10, 11, 14, and 18 for the prior art(s) allegedly not teaching or suggesting "generating an interpreted user behavior data from raw user data," the examiner respectfully submits that this argument is moot in view of the new ground(s) of rejection.

6. As to Applicant's arguments with respect to Claims 1, 5, 10, 11, 14, and 18 for the prior art(s) allegedly not teaching or suggesting "a state machine," the examiner respectfully submits that this argument is moot in view of the new ground(s) of rejection.

7. As to Applicant's arguments with respect to Claims 1, 5, 10, 11, 14, and 18 for the prior art(s) allegedly not teaching or suggesting "identifying at least one non-selected search result that is generated by the search mechanism as part of said search but that is not selected by the user," the examiner respectfully submits that this argument is moot in view of the new ground(s) of rejection.

8. As to Applicant's arguments with respect to Claims 1, 5, 10, 11, 14, and 18 for the prior art(s) allegedly not teaching or suggesting "acquiring the context-based user feedback data describing said search by submitting one or more questions to the user regarding the non-selected search result, and questions prompting the user for explicit reasons why the search result failed to correspond to a search request," the examiner

respectfully submits that the argument of “by submitting one or more questions to the user regarding the non-selected search result, and questions prompting the user for explicit reasons why the search result failed to correspond to a search request” is moot in view of the new ground(s) of rejection. “acquiring the context-based user feedback data describing said search” limitation was met by Biebesheimer below (Biebesheimer, paragraph [0029]). In this citing, Biebesheimer teaches that historical user interaction records database stores the users’ prior queries, responses, and interactions with the search system. The queries and response are context-based user feedback data describing said search.

9. As to Applicant’s arguments with respect to Claims 1, 5, 10, 11, 14, and 18 for there allegedly being no equivalence between “querying the user to confirm that a next string which led to results is what the user originally intended with the string that led to no results” and “querying the user for explicit reasons why a search result failed to correspond to a search request,” the examiner respectfully submits that this argument is moot in view of the new ground(s) of rejection.

10. Any other claims argued merely because of a dependency on a previously argued claim(s) in the arguments presented to the examiner, April 15th, 2008, are moot in view of the examiner’s interpretation of the claims and art and are still considered rejected based on their respective rejections from prior Office action(s) (part(s) of recited below).

Response to Amendment

Claim Rejections - 35 USC § 103

11. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

12. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

13. Claims 1-3, 10-13, and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent Application Publication No. 2002/0107843 (Biebesheimer et al.) in view of U.S. Patent No. 6,507,841 (Riverieulx).

For **Claim 1**, Biebesheimer teaches: "A method...said method comprising:

- collecting user information from a user having access to said search mechanism;
- [Biebesheimer, paragraph [0030]]

- monitoring of said search mechanism for raw user behavior data regarding an interaction of said user with said search mechanism to perform a search; [Biebesheimer, paragraph [0042]]
- ...monitoring said search mechanism for search mechanism response data regarding said search; [Biebesheimer, paragraph [0042]]
- ...acquiring the context-based user feedback data describing said search...” [Biebesheimer, paragraph [0029]].

Biebesheimer discloses the above limitations but does not expressly teach: “for improving performance of a search mechanism based on context-based user feedback data

- ...interpreting said raw user behavior data to generated interpreted user behavior data by concurrently updating a state machine using the raw user behavior data, wherein at least one interpretation corresponds to a state of the state machine and wherein the interpreted user behavior data includes at least one of user behavior data while visiting a result list page, user behavior while exploring a hyperlink on a result list page, user behavior for visiting a result item page and result item ignore behavior;
- ...identifying at least one non-selected search result that is generated by the search mechanism as part of said search but that is not selected by the user;
- ...by submitting one or more questions to the user regarding the non-selected search result and receiving responses to said questions, said questions

prompting the user for explicit reasons why a non-selected a search result failed to correspond to a search request;

- using the context-based user feedback data to identify a problem with the search mechanism; and
- correcting the problem to improve performance of the search mechanism.”

With respect to Claim 1, an analogous art, Riverieulx, teaches: “for improving performance of a search mechanism based on context-based user feedback data [Riverieulx, abstract]

- ...interpreting said raw user behavior data to generated interpreted user behavior data by concurrently updating a state machine using the raw user behavior data, wherein at least one interpretation corresponds to a state of the state machine and wherein the interpreted user behavior data includes at least one of user behavior data while visiting a result list page, user behavior while exploring a hyperlink on a result list page, user behavior for visiting a result item page and result item ignore behavior; [Riverieulx, col. 4, lines 23-37 with Riverieulx, col. 3, lines 56-64]
- ...identifying at least one non-selected search result that is generated by the search mechanism as part of said search but that is not selected by the user; [Riverieulx, col. 4, lines 23-37]
- ...by submitting one or more questions to the user regarding the non-selected search result and receiving responses to said questions, said questions

prompting the user for explicit reasons why a non-selected a search result failed to correspond to a search request; [Riverieulx, col. 3, lines 46-51]

- using the context-based user feedback data to identify a problem with the search mechanism; [Riverieulx, col. 3, lines 16-25 with Riverieulx, col. 4, lines 23-37] and
- correcting the problem to improve performance of the search mechanism” [Riverieulx, col. 4, lines 23-37].

It would have been obvious to one of ordinary skill in the art at the time of invention having the teachings of Riverieulx and Biebesheimer before him/her to combine Riverieulx with Biebesheimer because the inventions are directed towards using and searching for information in databases that use user data.

Riverieulx's invention would have been expected to successfully work well with Biebesheimer's invention because the inventions use databases using user data. Biebesheimer discloses a customer self service subsystem for classifying user contexts (title) comprising the acquiring of context-based user feedback data describing a search. However, Biebesheimer does not expressly disclose certain interpreted behavior data, updating a state machine, asking questions about search performance of the database/results and receiving responses, nor the explicit use of that data to evaluate performance. Riverieulx discloses methods of and an apparatus for refining descriptors (title) comprising updating a state machine (computer) using raw behavior data interpreted into interpreted behavior data, collecting explicit user feedback data

(comments) on how useful or relevant a search result was, the identification search results, and corrective actions for improvement of a search engine/mechanism.

It would have been obvious to one of ordinary skill in the art at the time of invention having the teachings of Riverieulx and Biebesheimer before him/her to take the updating of a state machine, corrective procedures, and the explicit feedback from Riverieulx and install them into the invention of Biebesheimer, thereby offering the obvious advantage of making refined descriptors to alter subsequent search results (Riverieulx, abstract) and a system that is easily searchable by the majority of a community (Riverieulx, col. 1, lines 41-42).

Claim 2 can be mapped to Biebesheimer (as modified by Riverieulx) as follows:
“The method of claim 1, where said user information comprises one or more of the following:

- the speed of said user's connection to said search mechanism; [Biebesheimer, paragraph [0036]]
- the type of said user's connection to said search mechanism; [Biebesheimer, paragraph [0073]]
- a classification of said user's use of said search mechanism; [Biebesheimer, paragraph [0030] with Biebesheimer, paragraph [0073]]
- background information concerning said user; [Biebesheimer, paragraph [0030]]
or
- the language which said user is using to perform said search” [Biebesheimer, paragraph [0073]].

Claim 3 can be mapped to Biebesheimer (as modified by Riverieulx) as follows:

“The method of claim 1, where said step of collecting said user information comprises:

- requesting said user information from said user; [Biebesheimer, paragraph [0030]] and
- accepting responses from said user” [Biebesheimer, paragraph [0030]].

For **Claim 10**, Biebesheimer teaches: “A method...said method comprising:

- monitoring of said search mechanism for user behavior data regarding an interaction of the user having access to said search mechanism with said search mechanism to perform a search, [Biebesheimer, paragraph [0042]] said user behavior data comprising data concerning at least one member of a group comprising: requery performed by said user, [Biebesheimer, paragraph [0027]] dwell time on said results page, click time on said results page, position of result clicked, more results requested by said user, result dwell time result page size, or result page actions; [Biebesheimer, paragraph [0029]]
- monitoring said search mechanism for search mechanism response data regarding said search; [Biebesheimer, paragraph [0042]]
- ...acquiring context-based user feedback data...” [Biebesheimer, paragraph [0029]].

Biebesheimer discloses the above limitations but does not expressly teach: “...for improving performance of a search mechanism based on context-based user feedback data

- ...identifying at least one non-selected search result that is generated by the search mechanism as part of said search but that is not selected by the user;
- ...by submitting one or more questions to the user regarding why the non-selected search result failed to correspond to the search and receiving responses to said questions;
- using the context-based user feedback data to identify a problem with the search mechanism; and
- correcting the problem to improve performance of the search mechanism.”

With respect to Claim 10, an analogous art, Riverieulx, teaches: “...for improving performance of a search mechanism based on context-based user feedback data

[Riverieulx, abstract]

- ...identifying at least one non-selected search result that is generated by the search mechanism as part of said search but that is not selected by the user;
[Riverieulx, col. 4, lines 23-37]
- ... by submitting one or more questions to the user regarding why the non-selected search result failed to correspond to the search and receiving responses to said questions; [Riverieulx, col. 3, lines 46-51] and
- using the context-based user feedback data to identify a problem with the search mechanism; [Riverieulx, col. 3, lines 16-25 with Riverieulx, col. 4, lines 23-37] and
- correcting the problem to improve performance of the search mechanism”
[Riverieulx, col. 4, lines 23-37].

It would have been obvious to one of ordinary skill in the art at the time of invention having the teachings of Riverieulx and Biebesheimer before him/her to combine Riverieulx with Biebesheimer because the inventions are directed towards using and searching for information in databases that use user data.

Riverieulx's invention would have been expected to successfully work well with Biebesheimer's invention because the inventions use databases using user data. Biebesheimer discloses a customer self service subsystem for classifying user contexts (title) comprising the acquiring of context-based user feedback data describing a search. However, Biebesheimer does not expressly disclose certain interpreted behavior data, updating a state machine, asking questions about search performance of the database/results and receiving responses, nor the explicit use of that data to evaluate performance. Riverieulx discloses methods of and an apparatus for refining descriptors (title) comprising updating a state machine (computer) using raw behavior data interpreted into interpreted behavior data, collecting explicit user feedback data (comments) on how useful or relevant a search result was, the identification search results, and corrective actions for improvement of a search engine/mechanism.

It would have been obvious to one of ordinary skill in the art at the time of invention having the teachings of Riverieulx and Biebesheimer before him/her to take the updating of a state machine, corrective procedures, and the explicit feedback from Riverieulx and install them into the invention of Biebesheimer, thereby offering the obvious advantage of making refined descriptors to alter subsequent search results

(Riverieulx, abstract) and a system that is easily searchable by the majority of a community (Riverieulx, col. 1, lines 41-42).

Claims 11-13 encompass substantially the same scope of the invention as that of Claims 1-3, respectfully, in addition to a system and some elements for performing the method steps of Claims 1-3, respectfully. Therefore, Claims 11-13 are rejected for the same reasons as stated above with respect to Claims 1-3, respectfully.

Claim 18 encompasses substantially the same scope of the invention as that of Claim 10, in addition to a system and some elements for performing the method steps of Claim 10. Therefore, Claim 18 is rejected for the same reasons as stated above with respect to Claim 10.

14. Claims 5, 7, 8, 14, 16, and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,507,841 (Riverieulx) in view of U.S. Patent No. 6,434,547 (Mischelevich et al.).

For **Claim 5**, Riverieulx teaches: "A method for improving performance of a search mechanism based on context-based user feedback data, [Riverieulx, abstract] said method comprising:

- monitoring of said search mechanism for user behavior data regarding an interaction of a user having access to said search mechanism with said search mechanism to perform a search; [Riverieulx, col. 4, lines 23-37]
- monitoring said search mechanism for search mechanism response data regarding said search; [Riverieulx, col. 4, lines 23-37]

- ...identifying at least one non-selected search result that is generated by the search mechanism as part of said search but that is not selected by the user; [Riverieulx, col. 4, lines 23-37]
- acquiring context-based user feedback data describing said search by submitting one or more questions to the user regarding explicit reasons why the non-selected search result failed to correspond to the search, said context-based user feedback data comprising information regarding an extent to which a search result corresponds to a search request, said context-based user feedback data further comprising said explicit feedback data if said explicit user feedback data was collected; [Riverieulx, col. 3, lines 46-51]
- using the context-based user feedback data to identify a problem with the search mechanism; [Riverieulx, col. 3, lines 16-25 with Riverieulx, col. 4, lines 23-37] and
- correcting the problem to improve performance of the search mechanism” [Riverieulx, col. 4, lines 23-37].

Riverieulx discloses the above limitations but does not expressly teach:

- “...determining if a snooze request specifying a time period to suspend collection of explicit feedback data is in effect from said user, and, if not, collecting explicit feedback data from the user.”

With respect to Claim 5, an analogous art, Mishelevich, teaches:

- “...determining if a snooze request specifying a time period to suspend collection of explicit feedback data is in effect from said user, and, if not, collecting explicit

feedback data from the user” [Mishelevich, cols. 8-9, lines 62-5 with Mishelevich, cols. 10-11, lines 63-22].

It would have been obvious to one of ordinary skill in the art at the time of invention having the teachings of Mishelevich and Riverieulx before him/her to combine Mishelevich with Riverieulx because both inventions are directed towards prompting users for information.

Mishelevich’s invention would have been expected to successfully work well with Riverieulx’s invention because both inventions use computers for data input. Riverieulx discloses methods of and an apparatus for refining descriptors (title) comprising collecting explicit user feedback data (comments) on how useful or relevant a search result was, the identification search results, and corrective actions for improvement of a search engine/mechanism. However, Riverieulx does not expressly disclose a snooze request with a time period to suspend data collection. Mishelevich discloses a data capture and verification system (title) comprising elements and actions equating to “determining if a snooze request specifying a time period to suspend collection of explicit feedback data is in effect from the user, and, if not, collecting explicit feedback data from the user.”

It would have been obvious to one of ordinary skill in the art at the time of invention having the teachings of Mishelevich and Riverieulx before him/her to take the pausing from different inputs and rhythm/rates from Mishelevich and install it into the invention of Riverieulx, thereby offering the obvious advantage of facilitating data entry (Mishelevich, col. 3, line 50).

Claim 7 can be mapped to Riverieulx (as modified by Mishelevich) as follows:

“The method of claim 5, where said step of determining if a snooze request is in effect from said user comprises:

- determining if said user has issued a snooze request; [Mishelevich, cols. 8-9, lines 62-5 with Mishelevich, cols. 10-11, lines 63-22] and
- determining if an associated time period associated with said snooze request has elapsed” [Mishelevich, cols. 8-9, lines 62-5 with Mishelevich, cols. 10-11, lines 63-22].

Claim 8 can be mapped to Riverieulx (as modified by Mishelevich) as follows:

“The method of claim 5, further comprising:

- storing target data concerning a target value for how often explicit feedback should be collected for searches; [Mishelevich, col. 11, lines 5-10] and
- allowing explicit feedback to be collected only if collecting the explicit feedback would not result in exceeding said target value for how often explicit feedback is collected” [Mishelevich, cols. 10-11, lines 63-22].

Claim 14 encompasses substantially the same scope of the invention as that of Claim 5 in addition to a system and some elements for performing the method steps of Claim 5. Therefore, Claim 14 is rejected for the same reasons as stated above with respect to Claim 5.

Claims 16 and 17 encompass substantially the same scope of the invention as that of Claims 7 and 8, respectfully, in addition to a system and some elements for performing the method steps of Claims 7 and 8, respectfully. Therefore, Claims 16 and

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17 are rejected for the same reasons as stated above with respect to Claims 7 and 8, respectfully.

Conclusion

15. Any prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Applicant is advised that, although not used in the rejections above, prior art cited on any PTO-892 form and not relied upon is considered materially relevant to the applicant's claimed invention and/or portions of the claimed invention.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brent S. Stace whose telephone number is 571-272-8372 and fax number is 571-273-8372. The examiner can normally be reached on M-F 9am-5:30pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Apu M. Mofiz can be reached on 571-272-4080. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/B. S./
Examiner, Art Unit 2161

/Apu M Mofiz/
Supervisory Patent Examiner, Art Unit 2161